PULLMAN PLANT MATERIALS CENTER

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Finding Vegetative Solutions to Conservation Problems

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To: Field offices
Plant Materials Centers
Plant Materials Specialists

Subj.: Update of Pullman PMC activities for July 1 – Sept. 30, 2K.

The Pullman PMC quarterly update is intended to provide field staff with a short description of PMC current activities. Please take a few minutes to read it, pass it along to others in your office, and when fully routed, feel free to file it in your recycle bin.

PLANT DEVELOPMENT

Crowder applied 'Spodnam' to the lupines and vetches in the native legume initial evaluation study. 'Spodnam' is a commercial product that inhibits seed shattering. This product may enable the PMC to develop releases of species that would normally shatter and make them unsuitable for large scale production.

Crowder also applied Spodnam to 'Umatilla' snow buckwheat. 'Umatilla' snow buckwheat was released by the Pullman PMC several years ago but poor seed production has hampered its acceptance in the commercial market. In addition to evaluating 'Spodnam', we are characterizing seed development of individual plants. It is possible that some refinement of the breeding population may solve much of the seed production difficulties.

Rose hips were "seeded" adjacent to the Highway 195 shrub plantings. These plantings are evaluating several shrub species for road cut/fill stabilization. "Seeding" rose hips might prove to be a cost effective means of introducing this species to roadsides.

TECHNOLOGY TRANSFER

Mark Simpson (Newport F.O.) and Ray Entz (Kalispel Indian Tribe Habitat Biologist) invited the PMC to visit a site along the banks of the Pend O'reille River where prairie cordgrass (*Spartina pectinata*) was colonizing bottomland. *Spartina* is native to the area but no large communities were observed until after the floods of 1997. *Spartina* responded to the post-flood conditions and a few fairly large communities have developed. It appears that the stands are expanding and displacing reed canarygrass. Soil samples from both plant communities as well as samples from an adjacent stand of timothy were collected then analyzed at the University of Idaho. The soil chemistries are similar between all 3 communities. The PMC is establishing additional studies to evaluate the competitive interactions between reed canarygrass (an aggressive riparian species) and *Spartina pectinata*.

Crowder visited the windbreak field evaluation plantings made the spring of 1996 in Adams County. Many of the Scotch Pines are over 2 meters tall and the Rocky Mountain Junipers are almost as tall. The Siberian Larch trees are still hanging in there but the plants do not look nearly as vigorous. The weed barrier used at all 3 sites is holding up well and the producers are doing a very good job of controlling weeds around the perimeter.

TECHNOLOGY TRANSFER CONT'D

Bob Gillaspy (Colville FO) and Stannard visited the planting made near Kettle Falls that compares several forage plants. As expected the 'Garrison' Creeping Foxtail was slow to establish. Excellent stands of 'Paddock' Meadow Brome were obtained. Decent stands of 'Lutana' Cicer Milkvetch and 'Tretana' Birdsfoot Trefoil were obtained. Tall fescue was extremely well represented. It will be fun to watch the species composition changes over the next several years.

Technical Note Agron-44 entitled 'Planting Dates for Fall Cover Crops in the Irrigated Columbia was distributed to the Washington field offices. It provides field staff with a means to predict biomass accumulation for several cover crops based upon seeding dates. An Oregon version to the same Technical Note will be distributed by this month.

Several yellow starthistle studies were wrapped in July and August. Data from the water use study indicate that yellow starthistle follows a similar water use pattern as bluebunch wheatgrass up until starthistle begins flowering (which coincides with seed filling of bluebunch wheatgrass). At flowering, yellow starthistle draws heavily from the lower profile. You may have noticed that yellow starthistle did not perform well this year while the bluebunch performed fairly well. This year was particularly dry and little water moved from the upper soil profiles into the lower profiles.

The Central Basin Team invited the PMC to its September 28 meeting to provide a short talk. A slide presentation on Reed canarygrass and its effect on riparian zone management was shown in the Prosser Experiment Station Conference room.

MISCELLEANEOUS

Plant Materials contacts from the NE, SE, Central Washington Teams, and Idaho Division 2 attended the Pullman PMC Long Range Plan review meeting in July. After reviewing progress reports, the meeting focused on future activities. Conservation concerns were listed and the teams prioritized each concern. The number one concern was Streambank Erosion and Riparian Zone Management. Number 2 and 3 were Weed Suppression and Water Quality, respectively. Cropland Erosion, Wildlife Habitat and Rangeland Improvement followed. Another issue addressed at the meeting was improved marketing of the PMC program to the field. It was decided that:

A) The PMC and PMS will visit each team annually to;
   - Discuss roles and responsibilities of PMC, PMS, and FO.
   - Provide overview of Plant Materials Program
   - Review Demonstration plantings and field plantings

B) Increase field plantings
   - Need more demonstration plantings
   - Field planting narrative reports need to be developed and distributed to the field by the PMS

C) Regular contact between PMC/PMS/Team contacts

D) PMC Quarterly Updates need to be continued

E) More team training by PMC and PMS (eg. CRP seeding principles)

F) More emphasis on use of WWW, instruction of field on how to use WWW to obtain plant information, create a direct link from state NRCS homepages.

Mark Stannard
PMC Team Leader